

USSN 10/077,574

Amendment Responsive to Office Action of December 15, 2003

March 15, 2004

A-1756

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A bone anchor insertion device, comprising:
a handle;
a nosepiece connected to a distal end of said handle;
a bone anchor connected to said nosepiece;
an actuator disposed on said handle for deploying said bone anchor; and
a suture tensioning mechanism disposed in said handle for tensioning suture which is associated with said bone anchor, comprising a suture knob and a suture ratchet wheel,
wherein said suture knob is rotatable to rotate said suture ratchet wheel.
2. (Canceled)
3. (Currently Amended) The bone anchor insertion device as recited in Claim 21, wherein said suture ratchet wheel includes a suture fixation slit disposed therein for receiving a free end of said suture.
4. (Original) The bone anchor insertion device as recited in Claim 1, wherein said suture is fixed to a portion of soft tissue to be attached to a portion of bone.
5. (Currently Amended) The bone anchor insertion device as recited in Claim 1, wherein said bone anchor comprises a tubular body which is adapted to receive said suture therethrough.
6. (Original) A bone anchor insertion device, comprising:

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a handle;

a nosepiece connected to a distal end of said handle, said nosepiece comprising an outer tube having a suture opening formed in its distal end and an inner tube disposed coaxially within said outer tube, said inner tube including a longitudinal opening therein, said inner tube being fixed relative to the outer tube;

a pull tube insertable into said inner tube;

a bone anchor disposed on said pull tube, said bone anchor including a laterally deployable member for engaging adjacent bone matter to secure said bone anchor in said bone matter; and

an actuator disposed in said handle for pulling said pull tube proximally to deploy the laterally deployable member of said bone anchor by engaging said laterally deployable member with a distal end surface of said inner tube.

7. (Original) The bone anchor insertion device as recited in Claim 6, wherein said laterally deployable member comprises a toggle ring member.

8. (Original) The bone anchor insertion device as recited in Claim 6, and further comprising a suture immobilizing member which is associated with said bone anchor for immobilizing a length of suture situated within said bone anchor.

9. (Original) The bone anchor insertion device as recited in Claim 8, wherein said suture immobilizing member is connected to a distal end of said pull tube, so that further actuation of said actuator on said handle after deployment of said laterally deployable member of said bone anchor causes said suture immobilizing member to move proximally to engage and immobilize said length of suture.

10. (Original) The bone anchor insertion device as recited in Claim 9, wherein said suture immobilizing member comprises a suture plug.

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11. (Original) The bone anchor insertion device as recited in Claim 9, and further comprising a tab disposed at a distal end of said pull tube for attaching said bone anchor to said pull tube, said tab being designed to break upon continued proximal movement of said pull tube once said laterally deployable member has been completely deployed, so that further proximal movement of said pull tube causes said suture immobilizing member to move proximally.

12. (Original) The bone anchor insertion device as recited in Claim 6, and further comprising a suture tensioning mechanism disposed in said handle for tensioning suture which is associated with said bone anchor.

13. (Original) The bone anchor insertion device as recited in Claim 12, wherein said suture tensioning mechanism comprises a suture knob and a suture ratchet wheel, and wherein said suture knob is rotatable to rotate said suture ratchet wheel.

14. (Original) The bone anchor insertion device as recited in Claim 13, wherein said suture ratchet wheel includes a suture fixation slit disposed therein for receiving a free end of said suture.

15-32. (Canceled)

33. (New) A bone anchor insertion device, comprising:

a handle;

a nosepiece connected to a distal end of said handle;

a bone anchor connected to said nosepiece;

an actuator disposed on said handle for deploying said bone anchor; and

a suture tensioning mechanism disposed in said handle for tensioning suture which is associated with said bone anchor;

wherein said bone anchor comprises a tubular body which is adapted to receive said suture therethrough.

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34. (New) The bone anchor insertion device as recited in Claim 33, wherein said suture is fixed to a portion of soft tissue to be attached to a portion of bone.